

## SEARCH REQUEST FORM

## Scientific and Technical Information Center

Requester's Full Name: JONATHAN F. REEMAN Examiner #: 79525 Date: 3/24/03  
 Art Unit: 3736 Phone Number 305-5390 Serial Number: 09/882363  
 Mail Box and Bldg/Room Location: C01-4854 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): see attached

Earliest Priority Filing Date: 12/16/98 (will call)

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

BIOCHEMICAL:

Glycosaminoglycan, WATER, Sodium, Hyaluronic Acid

SEE ATTACHED:

Clms: 34-60 (especially independent claims)

- method of making 3D maps of cartilage region (generally the knee)
- transferring image/map to another machine
- compare knee movements of mapped knee with a database of knee movements
- measure volume of cartilage in region of knee at another time - get difference

★ - Compare two or more volumes over time

## STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>Julie Walker</u>	NA Sequence (#) _____	STN _____
Searcher Phone #: <u>305-8587</u>	AA Sequence (#) _____	Dialog <u>✓</u>
Searcher Location: <u>C02-2008</u>	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: <u>3/24/03</u>	Bibliographic <u>✓</u>	Dr.Link _____
Date Completed: <u>3/24/03</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>43m</u>	Fulltext <u>✓</u>	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet <u>✓</u>
Online Time: <u>92m</u>	Other _____	Other (specify) _____

Biblio  
patents

8/5/1 (Item 1 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
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015096939 \*\*Image available\*\*  
WPI Acc No: 2003-157457/200315  
XRPX Acc No: N03-124285

Assessing region of interest of patient for tissue studies by deriving  
quantitative measure of bio-markers derived from lesion and  
angiogenesis characteristics

Patent Assignee: ASHTON E (ASHT-I); PARKER K J (PARK-I); TAMEZ-PENA J  
(TAME-I); TOTTERMAN S M S (TOTT-I); VIRTUALSCOPICS LLC (VIRT-N)  
Inventor: ASHTON E; PARKER K J; TAMEZ-PENA J; TOTTERMAN S M S; PARKER K  
Number of Countries: 100 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 2003009214	A1	20030130	WO 2002US22706	A	20020718	200315 B
US 20030036083	A1	20030220	US 2001306166	P	20010719	200316
			US 2002189476	A	20020708	

Bad  
Date

Priority Applications (No Type Date): US 2002189476 A 20020708; US  
2001306166 P 20010719

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
WO 2003009214	A1	E	40 G06K-009/00	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA  
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN  
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ  
OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA  
ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB  
GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW  
US 20030036083 A1 C12Q-001/68 Provisional application US 2001306166

Abstract (Basic): WO 2003009214 A1

NOVELTY - Method consists in taking an **MRI 3D** image of the  
**region** of interest by statistical segmentation with resolution finer  
than 1mm, identifying biomarkers and storing the image and biomarker  
ID. The biomarker is e.g. a tumor surface **area**, necrotic core **volume**  
, meniscus **shape**, tibia lateral **cartilage** curvature, gray matter  
characteristics or organ **shape** etc.

DETAILED DESCRIPTION - There is an INDEPENDENT CLAIM for a system  
for assessing a **region** of interest of a patient.

USE - Method is for **quantifying** tissues structures and change in  
them over **time** using bio-markers. It can be applied to e.g.  
**measurement** of the biparietal diameter of the fetal head to indicate  
fetal growth, **measurement** of the hippocampus in patients with  
epilepsy to determine asymmetry etc.

ADVANTAGE - Method is more accurate over **time** and enables  
**quantification** of small defects, tortuous objects, thin objects and  
curved objects.

DESCRIPTION OF DRAWING(S) - The figure shows a flow chart of the  
method.

pp; 40 DwgNo 1/5

Title Terms: ASSESS; **REGION**; INTEREST; PATIENT; TISSUE; STUDY; DERIVATIVE  
; **QUANTITATIVE**; **MEASURE**; BIO; MARK; DERIVATIVE; LESION; ANGIOGENESIS;  
CHARACTERISTIC

Derwent Class: S01; S03; S05; T01; T04

International Patent Class (Main): C12Q-001/68; G06K-009/00

International Patent Class (Additional): **A61B-005/00** ; G01N-031/00;  
G01N-033/48; G01N-033/50; G01N-033/53; G06F-019/00  
File Segment: EPI

Set	Items	Description
S1	126446	3D OR (THREE OR 3) ( ) (D OR DIMENSION?) OR 3DIMENSION? OR TH- REED
S2	92810	IMAGING OR MRI OR MAGNETIC()RESONANCE? OR M()R()I OR CT(2N- )SCAN???? OR COMPUTED()TOMOGRA? OR MR
S3	4756460	VOLUM? OR SIZE? OR SHAPE? OR AREA? OR REGION? OR AMOUNT? OR QUANTIT?
S4	1993679	COMPAR? OR CORRELAT? OR CONTRAST? OR MEASUR? OR QUANTIF?
S5	3032811	INTERVAL? OR TIME? ? OR DAYS OR WEEKS OR MONTHS OR YEARS OR PERIODS
S6	283	S1 AND S2 AND S3 AND S4 AND S5
S7	139	S6 AND IC=A61B
S8	1	S7 AND CARTILAG?

? show files

File 347:JAPIO Oct 1976-2002/Nov(Updated 030306)

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File 350:Derwent WPIX 1963-2003/UD,UM &UP=200318

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File 371:French Patents 1961-2002/BOPI 200209

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